

2008

TENNESSEE GUIDE TO

Tennessee

TRANSPORTATION EQUIPMENT

Tennessee Department of Economic & Community Development



Transportation Equipment Manufacturing

Industries within this subsector produce equipment for transportation of passengers and cargo by land, air and water. Included are motor vehicles, aircraft, guided missiles, space vehicles, ships, boats, railroad equipment, motorcycles, bicycles, snowmobiles and numerous other conveyances.

The significance of the Transportation Equipment industry is due in large part to its sizeable market share as well as the economic impact of the subsector in North America. In Tennessee, this industry provides a stable labor market with high skill employment at competitive wages.

Most of this industry is concentrated in central and Eastern Tennessee with facilities located in 43 out of the 95 Tennessee counties. As of 2005 there were 386 facilities. While this was a slight net decrease (5%) from 2001, employment within the transportation equipment manufacturing sector exhibited a nearly a three percent (3%) rate of growth, rising from 62,273 in 2001 to 64,140 in 2005. The average annual wage in this industry was \$47,062 in 2005.

From 2000 to 2003 the transportation equipment manufacturing industry increased its output from \$4,754,000,000 to \$5,205,000,000. The output

from this industry made up 14.6% of Tennessee's Manufacturing Gross State Product. Output is estimated to increase an additional 20.6% to \$6,277,000,000 through 2007.

All transportation equipment producing facilities fall into one of seven industry groups: motor vehicle manufacturing, motor vehicle body & trailer manufacturing, motor vehicle parts manufacturing, aerospace product and parts manufacturing, railroad rolling stock manufacturing, ship and boat building, and other transportation equipment manufacturing. A description of each group's function and operation follows.

DID YOU KNOW?...

- **Tennessee is the 5th largest producer of cars.**

– *Automotive News Magazine 2006 Market Data Book (2005 production)*

- **Tennessee is the 9th largest in light truck manufacturing.**

– *Automotive News Magazine 2006 Market Data Book (2005 production)*

- **The first US plant for Nissan is in Smyrna.**

<http://www.nissanglobal.com/GCC/Japan/History/history/index-e.html>

- **The first plant for Saturn is in Spring Hill.**

– *GM News Release, July 1985.*



MOTOR VEHICLE MANUFACTURING

This sector encompasses those facilities primarily engaged in the production and assembly of automobiles, trucks, utility vehicles and commercial trucks and vehicles.

- There are **eight establishments** in this sector that **employ approximately 15,372 people**.

- The **average wage** per worker is **\$71,108**.

- The **largest facilities** are the **Saturn/GM plant in Spring Hill (Maury County)**, which employs about **7,000** and the **Nissan Plant in Smyrna (Rutherford County)**, which employs about **6,700**.



Photo courtesy of Nissan

MOTOR VEHICLE BODY & TRAILER MANUFACTURING

This sector comprises establishments engaged in manufacturing (1) motor vehicle bodies and cabs or (2) truck, automobile and utility trailers, truck trailer chassis, detachable trailer bodies and detachable trailer chassis. Produced goods may be sold separately or assembled onto purchased chassis and sold as complete vehicles.

- There are **60 establishments** in this sector, employing approximately **2,446 people**.

- The **average wage** per workers is **\$34,723**.

- There are **five facilities** in Middle and East Tennessee with **100 or more employees** located in McMinn, Greene, Hamblin, Sumner, and Davidson counties.

MOTOR VEHICLE PARTS MANUFACTURING

This sector includes establishments engaged in the manufacturing of motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, vehicular lighting equipment, steering and suspension components (excluding spring), brake systems, transmission and power train parts, seating and interior trim, metal stamping and other motor vehicle parts.

- There are **223 establishments** in this sector, employing approximately **36,660 people**.

- The **average wage** per worker is **\$39,629**.

- The **largest** of these establishments is **Denso Manufacturing Tennessee, Inc.** located in Maryville (Blount County), employing about **2,200 people**.

- There are **six other facilities each with more than 1,000 employees** located in Coffee, Hamblin, Shelby, Lauderdale, Bedford, and Warren counties.

AEROSPACE PRODUCT AND PARTS MANUFACTURING

This sector consists of establishments primarily engaged (1) manufacturing complete aircraft, missiles, or space vehicles; (2) manufacturing aerospace engines, propulsion units, auxiliary equipment or parts; (3) developing and making prototypes of aerospace products; (4) aircraft conversion (i.e., major modifications to systems); and/or (5) rebuilding or overhauling complete aircraft or propulsion systems (i.e., periodic restoration of aircraft to original design specifications).

- There are **26 establishments** in this sector, employing approximately **2,639 people**.
- The **average wage** per worker is **\$50,608**.
- The **largest establishment** of this industry is **BWXT Y-12 LCC**, which employs **4,750 people** in Anderson County.
- It is followed by **Vought Aircraft Industries**, which employs approximately **1,100 people** in Davidson County, and **Boeing Co.**, employing **750 people** also in Anderson County.

RAILROAD ROLLING STOCK MANUFACTURING

This sector comprises establishments primarily engaged in manufacturing (1) locomotives, locomotive frames and parts (and/or rebuilding); (2) street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and (3) rail layers, ballast distributors, rail tamping equipment and other railway track maintenance equipment.

- There are **three establishments** in this sector, employing approximately 13 people.
- The **average wage** per worker is **\$34,468**.



SHIP AND BOAT BUILDING

This sector includes establishments primarily composed of manufacturing facilities (shipyards) for the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, in addition to specialized services such as ship scaling). These fixed facilities with drydocks and fabrication equipment capable of building ships or watercraft typically suitable or intended for commercial or non-recreational use, as well as that manufacture of boats intended for personal use.

- There are **39 establishments** in this sector, employing approximately **4,928 people**.
- The **average wage** per worker is **\$39,442**.
- **Sea Ray Boats** is the **largest employer** in this industry, employing **1,620 people** in Knox County. **Mastercraft Boat Co. Inc.** is the **next largest**, employing **550 people** in Vonore County.

OTHER TRANSPORTATION EQUIPMENT MANUFACTURING

This sector comprises establishments primarily engaged in manufacturing motorcycles, bicycles, metal tricycles, complete military armored vehicles, tanks, self-propelled weapons, vehicles pulled by draft animals, and other transportation equipment (except motor vehicles, boats, ships, railroad rolling stock, and aerospace products), including their component parts.

- There are **22 establishments** in this sector, employing approximately **525 people**.
- The average wage for workers in this industry is \$38,808.
- The **two largest employers** are **Miller Industries Inc.**, employing approximately **400 people**, and **American Bicycle Group**, employing about **210 people**. Both are located in Monroe County.

DID YOU KNOW?...

- The brand name “Litespeed” titanium frame bicycles were first built in Ooltewah, TN.



- Miller Industries is the world's largest manufacturer of towing equipment with subsidiaries in France and the U.K.



Photos courtesy of LiteSpeed and Miller Industries

Sources: Bureau of Labor Statistics, An Economic Report to the Governor of the State of Tennessee, North American Industrial Classification System 2002, Harris InfoSource

NUMBER OF COMPANIES AND EMPLOYEES BY GRAND DIVISION MANUFACTURING SECTORS

WEST

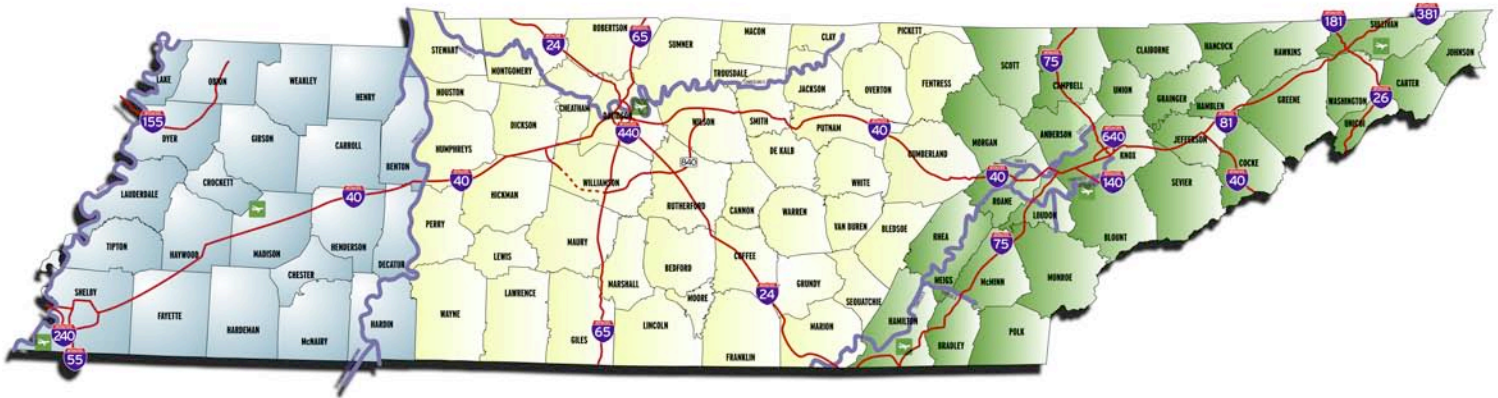
53 Companies
5,487 Employees

MIDDLE

141 Companies
26,541 Employees

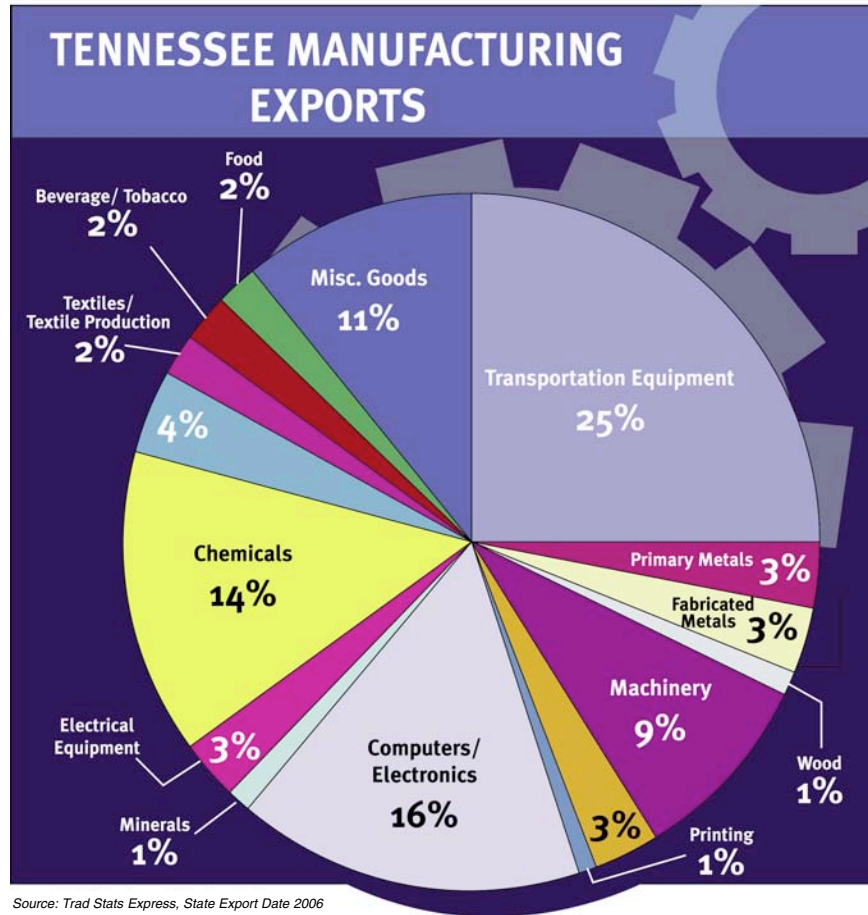
EAST

121 Companies
19,117 Employees



Transportation equipment is the largest manufacturing export from Tennessee, making up one fourth (25%) of total manufacturing exports.

The adjacent graph shows a breakdown of Tennessee's exports by industry.



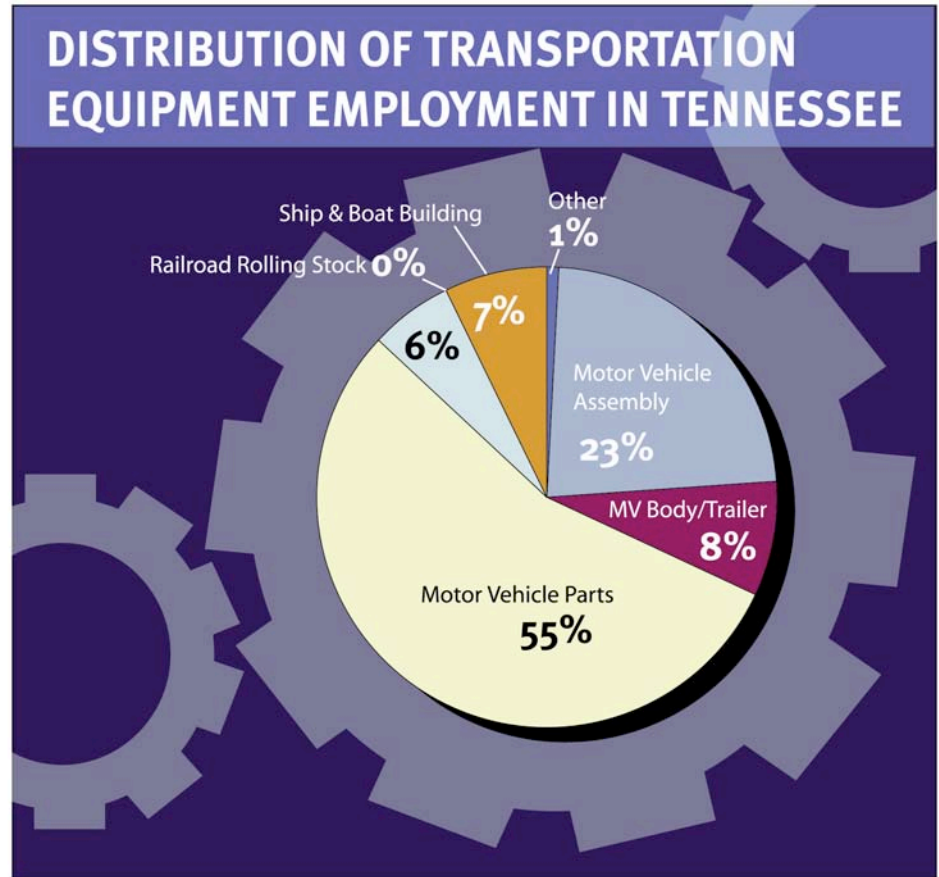
From 2000 to 2005 the total value of transportation equipment exported from Tennessee rose by about 66% from over \$2.5 billion to over \$4.25 billion.

This table lists the top twenty foreign markets to which transportation equipment is exported from Tennessee. Note from the table that Canada, Mexico, and the United Kingdom are the largest markets for Tennessee produced transportation equipment.

TOP EXPORT PARTNERS			
	2000	2005	
Partner	Export Value (\$)	Export Value (\$)	% change
Canada	1.12E+09	1.97E+09	76.01089
Mexico	4.54E+08	4.64E+08	2.07188
United Kingdom	2.66E+08	2.38E+08	-10.8472
United Arab Emirates	1497751	2.34E+08	15523.67
Kuwait	1273206	1.73E+08	13469.6
Spain	14565126	1.32E+08	803.7016
Singapore	47240585	1.18E+08	150.8182
Japan	1.5E+08	1.11E+08	-25.8057
South Korea	11098917	89188035	703.5742
Saudi Arabia	6520670	83025778	1173.271
Germany	91045950	76463325	-16.0168
Brazil	37647182	73205748	94.45213
Taiwan	11191699	58685469	424.366
Qatar	81894	45694790	55697.48
Oman	62881	44696522	70981.12
Australia	32097701	43606296	35.85489
Sweden	2958701	30808913	941.2986
Luxembourg	16157	27200878	168253.5
France	1.37E+08	26272585	-80.8654
Switzerland	1750997	24134464	1278.327
Other Countries	1.89E+08	2.19E+08	16.2303
World Total	2.57E+09	4.28E+09	66.2715
Source: Trad Stats Express, State Export Data 2006			

Motor vehicle part production represents much of the bulk of transportation equipment employment, followed by motor vehicle assembly, and motor vehicle body and trailer assembly.

The adjacent graph shows the employment breakdown in this industry by sector.



Source: Trad Stats Express, State Export Data 2006

Tennessee's two largest employers within this industry are Saturn Corporation whose facility in Maury County employs 7,000 and Nissan North America Inc. whose facility in Rutherford County employs 6,700.

The adjoining table provides a list of Tennessee's top twenty employers in this industry.

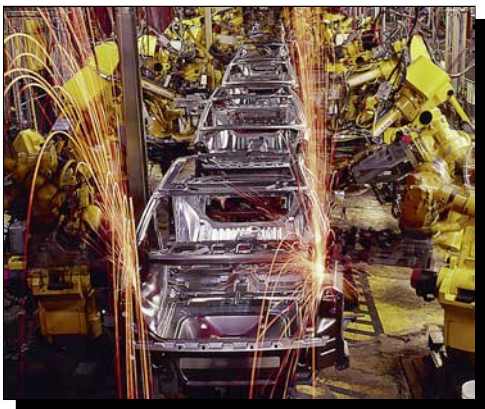
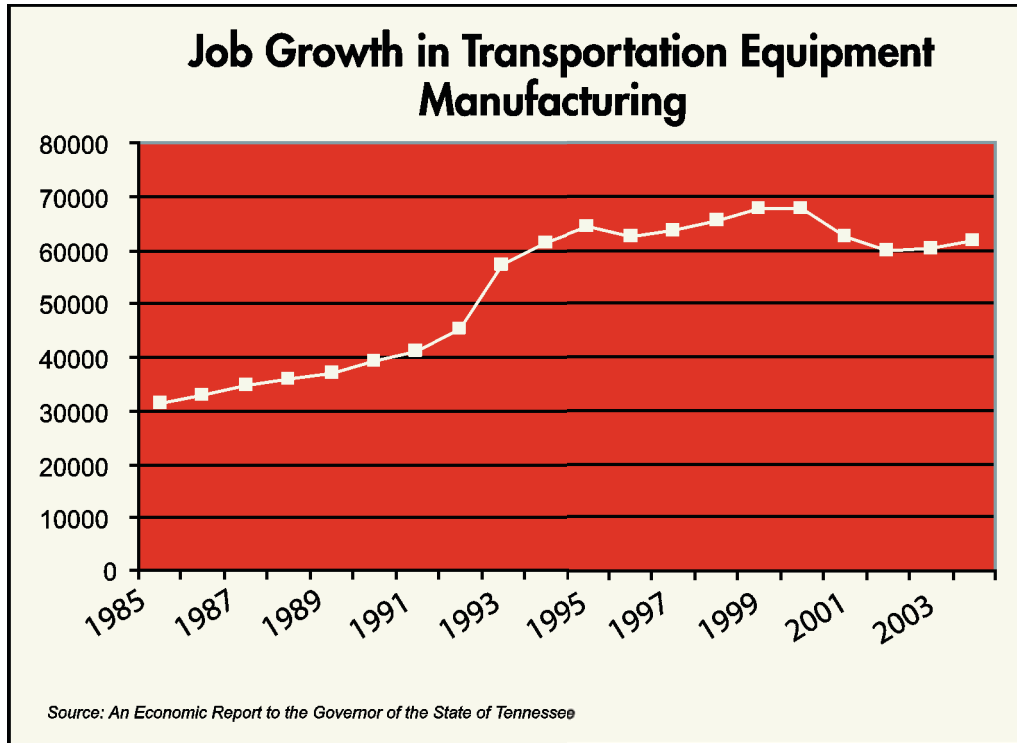


Photo courtesy of Saturn

TOP TWENTY EMPLOYERS			
COMPANY	COUNTY	LOCATION	EMPLOYEES
Saturn Corp	Maury	Spring Hill	7,000
Nissan North America Inc	Rutherford	Smyrna	6,700
BWXT Y-12 LLC	Anderson	Oak Ridge	4,750
Denso Manufacturing Tennessee Inc	Blount	Maryville	2,200
M-Tek Inc	Coffee	Manchester	1,317
Mahle, Inc.	Hamblen	Morristown	1,300
Lunati Cams Inc	Shelby	Memphis	1,300
Siegel-Robert Inc	Lauderdale	Ripley	1,200
Sea Ray Boats Florida Corp	Knox	Knoxville	1,170
Vought Aircraft Industries Inc	Davidson	Nashville	1,100
Calsonic North America Inc	Bedford	Shelbyville	1,000
Yorozu Automotive Tennessee Inc	Warren	Morrison	1,000
Johnson Controls Interiors LLC	McMinn	Athens	900
Collins & Aikman Products Co	McMinn	Athens	900
Federal-Mogul Corp	Dekalb	Smithville	900
TRW Automotive US LLC	Hawkins	Rogersville	800
Tennessee Koyo Steering Systems Co	Monroe	Vonore	780
Boeing Co	Anderson	Oak Ridge	750
National Seating Co	Monroe	Vonore	740
Lear Corp	Hamblen	Morristown	700
Source: Harris Info Source			

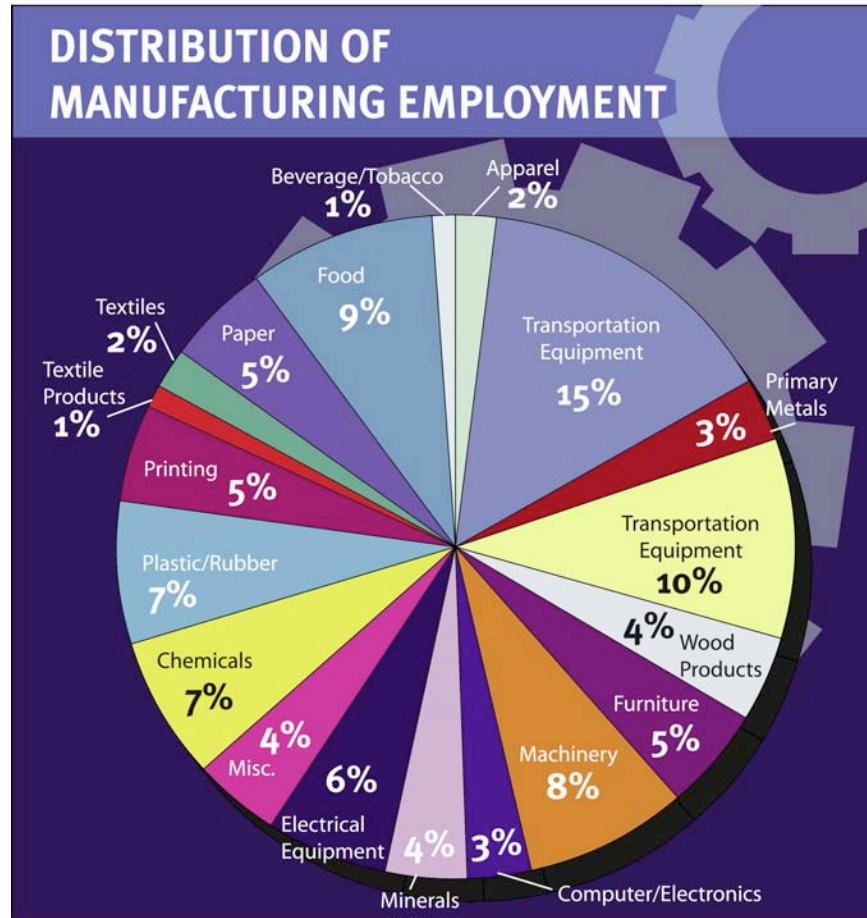
The number of Tennesseans employed in the manufacture of transportation equipment has increased considerably over the last two decades.

The graph below shows this increase from 1985 to 2004.



The transportation equipment industry is the largest area of manufacturing employment distribution in Tennessee, accounting for 15% of the state's manufacturing employment.

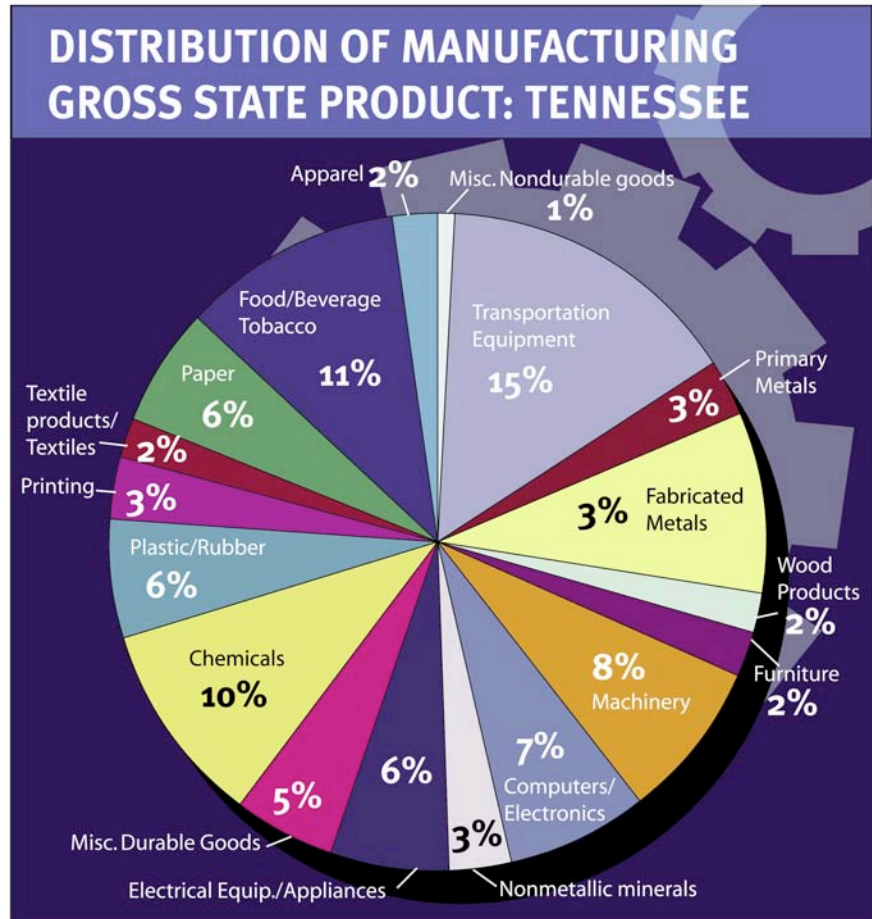
A breakdown of manufacturing employment by industry is represented in the graph.



Source: Trad Stats Express, State Export Data 2006

The transportation equipment industry accounts for 15% of Tennessee's manufacturing gross state product (GSP), making it the largest sector.

A breakdown of Tennessee's manufacturing GSP by sector is shown in the attached graph.



Source: Trad Stats Express, State Export Data 2006

REFERENCES

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U.S. Department of Labor, Bureau of Labor Statistics: <http://data.bls.gov/>

U.S. Census Bureau, County Business Patterns: <http://censtats.census.gov/cgi-bin/cbpnaic>

TradeStats Express: <http://ese.export.gov>

The Source. Tennessee Department of Labor and Workforce Development: <http://thesource.tnui.net/default.asp>



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